

§ 33.21

(b) Each Type A specific license of broad scope issued under this part shall be subject to the condition that by-product material possessed under the license may only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety committee.

(c) Each Type B specific license of broad scope issued under this part shall be subject to the condition that by-product material possessed under the license may only be used by, or under the direct supervision of, individuals approved by the licensee's radiological safety officer.

(d) Each Type C specific license of broad scope issued under this part shall be subject to the condition that by-product material possessed under the license may only be used by, or under the direct supervision of, individuals who satisfy the requirements of § 33.15 of this part.

VIOLATIONS

§ 33.21 Violations.

(a) The Commission may obtain an injunction or other court order to prevent a violation of the provisions of—

(1) The Atomic Energy Act of 1954, as amended;

(2) Title II of the Energy Reorganization Act of 1974, as amended; or

(3) A regulation or order issued pursuant to those Acts.

(b) The Commission may obtain a court order for the payment of a civil penalty imposed under section 234 of the Atomic Energy Act:

(1) For violations of—

(i) Sections 53, 57, 62, 63, 81, 82, 101, 103, 104, 107, or 109 of the Atomic Energy Act of 1954, as amended;

(ii) Section 206 of the Energy Reorganization Act;

(iii) Any rule, regulation, or order issued pursuant to the sections specified in paragraph (b)(1)(i) of this section;

(iv) Any term, condition, or limitation of any license issued under the sections specified in paragraph (b)(1)(i) of this section.

(2) For any violation for which a license may be revoked under section 186

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of the Atomic Energy Act of 1954, as amended.

[57 FR 55073, Nov. 24, 1992]

§ 33.23 Criminal penalties.

(a) Section 223 of the Atomic Energy Act of 1954, as amended, provides for criminal sanctions for willful violation of, attempted violation of, or conspiracy to violate, any regulation issued under sections 161b, 161i, or 161o of the Act. For purposes of section 223, all the regulations in part 33 are issued under one or more of sections 161b, 161i, or 161o, except for the sections listed in paragraph (b) of this section.

(b) The regulations in part 33 that are not issued under sections 161b, 161i, or 161o for the purposes of section 223 are as follows: §§ 33.1, 33.8, 33.11, 33.12, 33.13, 33.14, 33.15, 33.16, 33.21, 33.23 and 33.100.

[57 FR 55073, Nov. 24, 1992]

SCHEDULES

§ 33.100 Schedule A.

Byproduct material	Col. I curies	Col. II curies
Antimony-122	1	0.01
Antimony-124	1	.01
Antimony-125	1	.01
Arsenic-73	10	.1
Arsenic-74	1	.01
Arsenic-76	1	.01
Arsenic-77	10	.1
Barium-131	10	.1
Barium-140	1	.01
Beryllium-7	10	0.1
Bismuth-210 .....	.1	.001
Bromine-82	10	.1
Cadmium-109	1	.01
Cadmium-115m	1	.01
Cadmium-115	10	.1
Calcium-45	1	.01
Calcium-47	10	.1
Carbon-14	100	1.
Cerium-141	10	.1
Cerium-143	10	.1
Cerium-144 .....	.1	.001
Cesium-131	100	1.
Cesium-134m	100	1.
Cesium-134 .....	.1	.001
Cesium-135	1	.01
Cesium-136	10	.1
Cesium-137 .....	.1	.001
Chlorine-36	1	.01
Chlorine-38	100	1.
Chromium-51	100	1.
Cobalt-57	10	0.1
Cobalt-58m	100	1.
Cobalt-58	1	.01
Cobalt-601	.001
Copper-64	10	.1
Dysprosium-165	100	1.
Dysprosium-166	10	.1

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Byproduct material	Col. I curies	Col. II curies	Byproduct material	Col. I curies	Col. II curies
Erbium-169	10	.1	Rhodium-105	10	.1
Erbium-171	10	.1	Rubidium-86	1	.01
Europium-152 9.2 h	10	.1	Rubidium-87	1	.01
Europium-152 13 y .....	.1	.001	Ruthenium-97	100	1.
Europium-154 .....	.1	.001	Ruthenium-103	1	.01
Europium-155	1	.01	Ruthenium-105	10	.1
Fluorine-18	100	1.	Ruthenium-106 .....	.1	.001
Gadolinium-153	1	.01	Samarium-151	1	.01
Gadolinium-159	10	.1	Samarium-153	10	.1
Gallium-72	10	.1	Scandium-46	1	.01
Germanium-71	100	1	Scandium-47	10	.1
Gold-198	10	.1	Scandium-48	1	.01
Gold-199	10	.1	Selenium-75	1	.01
Hafnium-181	1	.01	Silicon-31	10	.1
Holmium-166	10	.1	Silver-105	1	.01
Hydrogen-3	100	1	Silver-110m .....	.1	.001
Indium-113m	100	1	Silver-111	10	.1
Indium-114m	1	.01	Sodium-22	0.1	0.001
Indium-115m	100	1	Sodium-24	1	.01
Indium-115	1	.01	Strontium-85m	1,000	10.
Iodine-125 .....	.1	.001	Strontium-85	1	.01
Iodine-126 .....	.1	.001	Strontium-89	1	.01
Iodine-129 .....	.1	.01	Strontium-90 .....	.01	.0001
Iodine-131 .....	.1	.001	Strontium-91	10	.1
Iodine-132	10	.1	Strontium-92	10	.1
Iodine-133	1	.01	Sulphur-35	10	.1
Iodine-134	10	.1	Tantalum-182	1	.01
Iodine-135	1	.01	Technetium-96	10	.1
Iridium-192	1	.01	Technetium-97m	10	.1
Iridium-194	10	.1	Technetium-97	10	.1
Iron-55	10	.1	Technetium-99m	100	1.
Iron-59	1	.01	Technetium-99	1	.01
Krypton-85	100	1	Tellurium-125m	1	.01
Krypton-87	10	.1	Tellurium-127m	1	.01
Lanthanum-140	1	.01	Tellurium-127	10	.1
Lutetium-177	10	.1	Tellurium-129m	1	.01
Manganese-52	1	.01	Tellurium-129	100	1
Manganese-54	1	.01	Tellurium-131m	10	.1
Manganese-56	10	.1	Tellurium-132	1	.01
Mercury-197m	10	.1	Terbium-160	1	.01
Mercury-197	10	.1	Thallium-200	10	.1
Mercury-203	1	.01	Thallium-201	10	.1
Molybdenum-99	10	.1	Thallium-202	10	.1
Neodymium-147	10	.1	Thallium-204	1	.01
Neodymium-149	10	.1	Thulium-170	1	.01
Nickel-59	10	.1	Thulium-171	1	.01
Nickel-63	1	.01	Tin-113	1	.01
Nickel-65	10	.1	Tin-125	1	.01
Niobium-93m	1	.01	Tungsten-181	1	.01
Niobium-95	1	.01	Tungsten-185	1	.01
Niobium-97	100	1.	Tungsten-187	10	.1
Osmium-185	1	.01	Vanadium-48	1	.01
Osmium-191m	100	1.	Xenon-131m	1,000	10.
Osmium-191	10	.1	Xenon-133	100	1.
Osmium-193	10	.1	Xenon-135	100	1.
Palladium-103	10	.1	Ytterbium-175	10	.1
Palladium-109	10	.1	Yttrium-90	1	.01
Phosphorus-32	1	.01	Yttrium-91	1	.01
Platinum-191	10	.1	Yttrium-92	10	.1
Platinum-193m	100	1.	Yttrium-93	1	.01
Platinum-193	10	.1	Zinc-65	1	.01
Platinum-197m	100	1	Zinc-69m	10	.1
Platinum-197	10	.1	Zinc-69	100	1.
Polonium-210 .....	.01	.0001	Zirconium-93	1	.01
Potassium-42	1	.01	Zirconium-95	1	.01
Praseodymium-142	10	.1	Zirconium-97	1	.01
Praseodymium-143	10	.1	Any byproduct material other than alpha emitting byproduct material not listed above .....	.1	.001
Promethium-147	1	.01			
Promethium-149	10	.1			
Radium-226	0.01	0.0001			
Rhenium-186	10	.1			
Rhenium-188	10	.1			
Rhodium-103m	1,000	10.			

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PART 34—LICENSES FOR INDUSTRIAL RADIOGRAPHY AND RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL RADIOGRAPHIC OPERATIONS

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APPENDIX A TO PART 34—RADIOGRAPHER CERTIFICATION

AUTHORITY: Secs. 81, 161, 182, 183, 68 Stat. 935, 948, 953, 954, as amended (42 U.S.C. 2111, 2201, 2232, 2233); sec. 201, 88 Stat. 1242, as amended (42 U.S.C. 5841); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note). Section 34.45 also issued under sec. 206, 88 Stat. 1246 (42 U.S.C. 5846).

SOURCE: 62 FR 28963, May 28, 1997, unless otherwise noted.

Subpart A—General Provisions

§ 34.1 Purpose and scope.

This part prescribes requirements for the issuance of licenses for the use of sealed sources containing byproduct material and radiation safety requirements for persons using these sealed sources in industrial radiography. The provisions and requirements of this